

REMARKS

Claims 1, 4, 5, 7, 8, 10, and 16-17 are pending in the application. Claim 18 has been canceled.

Terminal Disclaimer

The terminal disclaimer filed on December 15, 2010 was not entered because the filing date of the copending application No. 10/550,002 is incorrect.

In view of this, a terminal disclaimer with the correct filing date of September 23, 2005 has been submitted herewith.

The Examiner is respectfully requested to approve and enter the terminal disclaimer, and reconsider and withdraw the Double Patenting rejection.

Double Patenting

Claims 8 and 10 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 7, 8, 10, and 11 of copending application No. 10/550,002.

In view of this, a terminal disclaimer has been submitted herewith to overcome this rejection.

The Examiner is respectfully requested to approve and enter the terminal disclaimer, and reconsider and withdraw this rejection.

Telephonic Interview

Applicants appreciate the Examiner's time and effort in conducting a telephonic interview of May 18, 2011 with Applicants' representative, Maki Hatsumi.

During the interview, claim 1, and the Hashimoto and McAllister references were discussed. The Examiner has indicated that the term (first and second) “swirl periods” is too broad because it may still read on the Hashimoto reference, which discloses the (first and second) spin dry rinse modes including spin drying at a high speed and a low speed. More specifically, the Examiner alleges that Hashimoto inherently discloses the claimed invention because, although the discharge valve is opened during the spin dry rinse modes, water in the laundry may still flow through the laundry.

Applicants’ representative also argued that since Hashimoto opens the discharge valve during the spin dry rinse modes, Hashimoto does not disclose or suggest generating a flow of water during the rinse modes. In response, the Examiner also alleged that the McAllister reference (US 2003 /0208855) also discloses this feature. Applicants’ representative argued that although McAllister may disclose maintaining water in the wash basket, it merely discloses changing rotating direction of the water flow and periods thereof to enhance mechanical action inside the washer (see paragraph [0039]) and does not disclose or suggest changes the strength of the water flow during the rinsing process. The Examiner agreed.

The Examiner has suggested that, in order to clearly distinguish the claimed invention over the cited references, the claim 1 be amended to further define the functions of the claimed “swirl periods,” and/or the claimed “such that the time of the predetermined process is longer when metal ions are added than when no metal ions are added but the treatment substance is added” limitation, and provide, if any, secondary considerations, such as unexpected results, that were found as a result of executing the claimed process(es).

In order to further clarify the claimed invention of the present application, rather than amending claim 1 as suggested by the Examiner, the claim has been amended to emphasize that

“the predetermined process is performed with the laundry immersed in water inside the washing tub.”

Applicants believe that claim 1, as amended, clearly distinguished over the cited references at least for the reasons stated below.

A favorable determination by the Examiner and allowance of the pending claims is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1, 4, 5, 7, and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando et al. (JP 2001-276484) in view of Mueller et al. (USP 5,504,955), in view of Kown (US 2002/0088061), in view of Hashimoto (USP 5,743,115). This rejection is respectfully traversed.

Claim 1 has been amended to include the features recited in claim 18. Therefore, claim 1, as amended, claims:

wherein the predetermined process is performed with the laundry immersed in water inside the washing tub.

As recited in claim 1, the predetermined process includes “first and second powerful swirl periods and a mild swirl period, or first and second powerful swirl periods and a still period.”

In the Office Action, the Examiner acknowledges that the Ando reference (as well as the Mueller and Kown references) does not disclose or suggest the “predetermined process,” as recited in claim 1.

Therefore, the Examiner relies on the Hashimoto reference and alleges that it discloses the “first powerful swirl period,” the “second powerful swirl period,” and the “mild/still period” in between.

Applicants submit that Hashimoto states, in col. 6, line 52. that “During the spin dry rinse mode, discharge valve is opened,” and in Step 9 (spin dry rinse) in Figs. 4 and 5, the supplied water is discharged without being kept in the washing tub. Thus, no flow of water is ever generated.

Further, in Step 10 “Spin dry,” the supply valve is closed, and Hashimoto states, in col. 7, line 2 that “In the following spin dry operation, detergent-laden water is evacuated from the laundry and tub by rotating the tub at high speed. This efficiently removes the detergent from the laundry.” This statement clearly indicates that no flow of water is generated in the “Spin dry step.”

Therefore, although water remaining in or absorbed by the laundry may still flow through the laundry, as the Examiner alleged during the interview, the “first powerful swirl period,” the “second powerful swirl period,” and the “mild/still period” of Hashimoto are not “performed with the laundry immersed in water inside the washing tub,” as recited in claim 1, because there would be no water sufficient to “immerse” the laundry remaining in the washing tub.

Accordingly, even assuming that the cited references can be combined, which Applicants do not admit, Ando in view of Mueller, in view of Kown, and in view of Hashimoto fails to disclose or suggest the foregoing claimed features of the present invention.

Further, upon rejecting claim 18, the Examiner alleges that the McAllister reference discloses a method for time-varying the agitator oscillation, in which water is supplied to the wash basket to the clothes up to a level which exceeds the clothes level.

Applicants submit, however, that McAllister merely discloses changing rotating direction of the water flow and periods thereof to enhance mechanical action inside the washer (see paragraph [0039]) and does not disclose or suggest changes the strength of the water flow during the rinsing process, as required in claim 1.

Yet further, the Hashimoto reference specifically requires that the discharge valve is opened and detergent-laden water is evacuated from the laundry and tub by rotating the tub at high speed. Therefore, if Hashimoto is modified to maintain water in the washing tank, as disclosed by McAllister, Hashimoto would no longer operate as intended. Therefore, applicants respectfully submit that combination of Hashimoto and McAllister is improper.

Claims 4, 5, 7, and 16, dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 8, 10, and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of Hashimoto. This rejection is respectfully traversed.

(Claim 8)

Claim 8 has been amended to claim:

wherein when the rinsing for correcting uneven spreading of laundry is executed while the water having the metal ions added thereto is supplied, an amount of metal ions added is less than that added in previous processes to restrain consumption of the metal ions. (*emphasis added*)

This feature is described in page 39, lines 5-9 of the specification.

Upon rejecting claim 10, the Examiner relies on the Ando reference and alleges that:

Ando does disclose that the electrolysis power between the silver electrodes can be varied to keep an antibacterial activity high by keeping the silver ion concentration over 3 ppb,

while reducing discoloration of clothes by keeping the silver ion concentration below 50 ppb. (*emphasis added*)

In view of the foregoing disclosure by Ando, the reference recognizes maintaining the silver ion concentration within a certain range to keep an antibacterial activity high and, at the same time, reducing discoloration of clothes.

Applicants submit, however, that Ando does not disclose or suggest the concept of restraining “consumption of the metal ions,” as recited in claim 8. One of the objectives of Ando is to keep the antibacterial activity high regardless of consumption of the silver ion.

The Hashimoto reference has been relied upon to show that a washing machine comprising an unbalance detecting portion detecting unbalance in the washing tub, an unbalance correction portion correcting the unbalance by agitating inside the washing tub, and a controller that controls the washing machine is known in the art.

In view of this, even assuming that Ando and Hashimoto can be combined, which Applicants do not admit, Ando and Hashimoto, taken singly or in combination fail to disclose or suggest that “an amount of metal ions added is less than that added in previous processes to restrain consumption of the metal ions,” as recited in claim 8.

Claim 10 has been canceled.

(Claim 17)

Claim 17 has been amended to claim:

wherein the control unit is configured to, when the unbalance detecting portion detects unbalance in the washing tub during squeezing rotation of the washing tub performed thereafter, detect the metal ions have been added in the final rinsing, control the unbalance correcting portion to execute rinsing for correcting uneven spreading of

laundry in which, while water having no metal ions added thereto is supplied, agitation is performed, and control the informing portion to give an indication and/or notification that water having no metal ions added thereto is being supplied to notify a user that expected antimicrobial effect may not be achieved to restrain consumption of the metal ions.

As stated in the foregoing with regard to claim 8, Ando does not recognize the concept of restraining “consumption of the metal ions,” as recited in claim 17.

Therefore, even assuming that Ando and Hashimoto can be combined, which Applicants do not admit, Ando and Hashimoto, taken singly or in combination, fail to disclose or suggest the foregoing claimed feature of the present invention.

In view of this, the Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 18 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando, in view of Mueller, in view of Kwon, and further in view of McAllister et al. (US 2003 /0208855). This rejection is respectfully traversed.

Claim 18, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Applicant also submit that McAllister merely discloses the method for time-varying the agitator oscillation (e.g., the rotating direction of the water flow in the wash tank) in an automatic washer and does not disclose or suggest the foregoing distinctive feature of the present invention (see paragraph [0039]). Therefore, McAllister does not affect the patentability of claim 1.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.

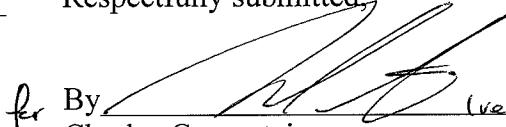
The Examiner is respectfully requested to enter this Amendment After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Amendment After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Registration No. 40417, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

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Attachments: Terminal Disclaimer